



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|--------------------------------|-----------------------|------------------|
| 10/510,230 | 10/13/2004 | Hans-Bernhard Bolza-Schunemann | W1.1917PCT-US | 4323 |
| 7590 | | 08/03/2007 | | |
| Douglas R Hanscom | | | | |
| Jones Tullar & Cooper | | | | |
| Eads Station | | | | |
| PO Box 2266 | | | | |
| Arlington, VA 22202 | | | | |
| | | | EXAMINER | |
| | | | KUMAR, KALYANAVENKA K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3653 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 08/03/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/510,230 | Applicant(s) BOLZA-SCHUNEMANN, HANS- BERNHARD | |
| | Examiner Kalyan Kumar | Art Unit 3653 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-32, 37, 39, 41, 43-46, 48, 49, 52-54, 60, 61, 63, 64, 66, 67 and 69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-32, 37, 39, 41, 43-46, 48, 49, 52-54, 60, 61, 63, 64, 66, 67 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/13/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-32, 37, 39, 41, 43-46, 48, 49, 52-54, 60, 61, 66, 67, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Peyrebrune (USP 3,178,176)** in view of **Nakamura (USP 4,345,752)** and in further view of **Weisgerber (USP 4,643,414)**.

Regarding claims 30-32, 43-46 and 69, Peyrebrune discloses a device for aligning sheets transversely with respect to a sheet running direction comprising: a sheet support (16), which is a feed table, including a side register mark (62); a roller positioned above the sheet support and having a longitudinal axis of rotation and roller surface extending in the sheet running direction (28), but Peyrebrune does not disclose the roller being a suction roller and a sheet holding surface segment on a circumference of the suction roller, the longitudinal distance of the sheet holding surface segment of the suction roller being greater than the transverse distance of the sheet holding surface segment where the ratio would be greater than 3 or greater than 5, the transverse distance being less than the circumference of the suction roller and further the means for rotating the suction roller through one half a revolution for each sheet to be aligned

Art Unit: 3653

against the side register mark; and at least first and second circumferentially spaced suction hole segments on the roller, each of the first and second spaced suction hole segment having a plurality of circumferentially spaced and axially extending suction holes, each the at least first and second circumferentially spaced suction hole segment being adapted to exert a suction pull on a separate one of a plurality of sheets to be sequentially aligned against the side register mark.

Nakamura teaches the roller being a suction roller (29a) and a sheet holding surface segment on a circumference of the suction roller (32) where a transverse distance of the segment being less than the circumference of the suction roller and a length of the longitudinal distance of the sheet holding surface extending in the sheet running direction, and further the means for rotating the suction roller through one half a revolution for each sheet to be aligned against the side register mark (col. 6, lines 19-23); and at least first and second circumferentially spaced suction hole segments on the roller (element 32 around circumference of element 29), each of the first and second spaced suction hole segment having a plurality of circumferentially spaced and axially extending suction holes (30 and 31), each the at least first and second circumferentially spaced suction hole segment being adapted to exert a suction pull on a separate one of a plurality of sheets (col. 3, lines 35-37) to be sequentially aligned against the side register mark for the purpose of picking the topmost sheet by suction force (Abstract, lines 4-5). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Peyrebrune's device with a suction

roller, as taught by Nakamura, for the purpose of picking the topmost sheet by suction force.

Further, Peyrebrune in view of Nakamura (Peyrebrune/Nakamura) does not disclose the longitudinal distance of the sheet holding surface segment of the suction roller being greater than the transverse distance of the sheet holding surface segment where the ratio would be greater than 3 or greater than 5. Weisgerber teaches the longitudinal distance of the sheet holding surface segment of the suction roller being greater than the transverse distance of the sheet holding surface segment where the ratio would be greater than 3 or greater than 5 for the purpose of adaptation to different sheet formats (col. 2, lines 65-68, and col. 3, line 1). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Peyrebrune/Nakamura's device with a long sheet holding surface segment, as taught by Jeschke, for the purpose of adaptation to different sheet formats.

Regarding claim 37, Peyrebrune discloses a roller longitudinal axis extending in the sheet running direction (axis of element 30).

Regarding claim 39, Peyrebrune discloses means supporting the roller for rotation (col. 2, lines 37-39).

Regarding claim 41, Peyrebrune discloses means supporting the suction roller above the sheet support (see Fig. 1).

Regarding claims 48 and 49, Peyrebrune discloses all the limitations of the claim, but Peyrebrune does not disclose the suction roller has spaced suction hole segments on a peripheral surface and alternating spaced non-suction hole segments with, and

further including a stationary pipe supporting the suction roller for rotation, means supplying suction air to the stationary pipe, and a narrow suction slit on the stationary pipe, the narrow suction slit being alignable with the suction holes to define a narrow suction strip of the suction holes charged with suction. Nakamura teaches the suction roller has spaced suction hole segments on a peripheral surface and alternating spaced non-suction hole segments (surface of element 29a without element 32) with, and further including a stationary pipe (34) supporting the suction roller for rotation, means supplying suction air to the stationary pipe, and a narrow suction slit (33, 33a, and 33b) on the stationary pipe, the narrow suction slit being alignable with the suction holes to define a narrow suction strip of the suction holes charged with suction for the reason stated above. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Peyrebrune's device with a suction roller, as taught by Nakamura, for the purpose of picking the topmost sheet by suction force.

Regarding claim 52, Peyrebrune discloses means for moving sheets from the sheet support in the sheet running direction with a lateral offset (col. 1, lines 15-19).

Regarding claims 53 and 54, Peyrebrune discloses a tolerance strip defined by an edge of a sheet entering the sheet support (defined by element 19 and element 62); the narrow suction strip being arranged between the tolerance strip and lateral offset edges of sheets supported by the sheet support.

Regarding claims 60, 61, 66, and 67, Peyrebrune discloses all the limitations of the claims, but Peyrebrune does not disclose a flexible belt above the sheet support, the

flexible belt driving the suction roller for rotation. Nakamura teaches a flexible belt (79) above the sheet support, the flexible belt driving the suction roller for rotation (col. 5, lines 25-35) for the purpose of driving the suction roller. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Peyrebrune's device with a suction roller, as taught by Nakamura, for the purpose of driving the suction roller.

Claims 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peyrebrune in view of Nakamura and in further view of Weisgerber (Peyrebrune/Nakamura/Weisgerber) as applied to claims 30 and 32 above, and further in view of **Hubner (USP 4,430,937)**.

Regarding claims 63 and 64, Peyrebrune/Nakamura/Weisgerber discloses all the limitations of the claims, but Peyrebrune/Nakamura/Weisgerber does not disclose means driving the suction roller, and including bevel drive gears and a drive shaft rotatably supported transverse to the suction roller and beneath the sheet support. Hubner teaches bevel drive gears (11 and 16) and a drive shaft (14) for the purpose of driving the shaft (col. 3, lines 15-16). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Peyrebrune/Nakamura/Weisgerber's device with bevel drive gears and a drive shaft, as taught by Hubner, for the purpose of driving the shaft.

Claims 32, 37, 39, 41, 46, 49, 52, 54, 61, 64, and 67 appear to be written to invoke 35 USC 112 6th paragraph. However, the applicant has not formally invoked 35 USC 112 6th paragraph. Therefore, the examiner has construed the claims as not

Art Unit: 3653

invoking 35 USC 112 6th paragraph. If the applicant wishes to invoke 35 USC 112 6th paragraph, please make a formal statement and identify the corresponding structure in the specification for each means plus function recitation.

Claims 33-36, 38, 40, 42, 47, 50, 51, 55-59, 62, 65, and 68 have been cancelled.

Response to Arguments

Applicant's arguments with respect to claims 30-32, 37, 39, 41, 43-46, 48, 49, 52-54, 60, 61, 63, 64, 66, 67, and 69 have been considered but are moot in view of the new ground(s) of rejection.

Response to 35 USC 112 Rejection

Rejections have been withdrawn due to applicant's amendment.

Response to 35 USC 103 Rejection


See new rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan Kumar whose telephone number is 571-272-8102. The examiner can normally be reached on Mon-Fri 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Kalyan Kumar
Examiner
Art Unit 3653